



By David Schardt

"One would have thought that most over-the-counter sex products would have disappeared with the new safe and effective drugs for male sexual dysfunction, like Viagra, Levitra, and Cialis," says urologist Irwin Goldstein of the Boston University School of Medicine. "But what has happened is the complete opposite."

Pin part of the blame on Viagra. "Viagra established that one small pill could make a big difference in sexual performance," says Goldstein.

And if a prescription drug can do it, why can't an over-the-counter supplement?

"Consumers have trouble distinguishing one slick ad from another," says Goldstein. Advertisements for the herbal supplement Enzyte were designed to look just like ads for prescription drugs, even down to using a phony Latin name, *suffragium asotas* (*caveat emptor* would have been more appropriate).

"Around 40 percent of men try a non-prescription supplement before they go to see a doctor about their problem," says Goldstein. "That's a huge number."

Viagra also pioneered the open discussion of male sexual hydraulics. That's good if it encourages men to seek help. But it's not so good when it leads scam artists to peddle worthless supplements.

Why are we being bombarded 24/7 with ads and e-mails for sex pills? In large part, because there's a lot of easy money to be made. And there's little chance that the slow-moving Food and Drug Administration or Federal Trade Commission will spoil the fun.

Take Enzyte. Three years ago, a young Ohio entrepreneur named Steve Warshak decided that he could make more money in the dietary supplement business than he was earning selling billboard ads at ice rinks. He hired a New Jersey company, Garden State Nutritionals, to formulate a sex pill he could sell to men.

"You can become an All Night Lover."

"Gain up to 3 inches."

"Enjoy explosive sex tonight and EVERY NIGHT... no matter how old you are!"

Sex sells. It sells skimpy lingerie, alluring perfumes, and steamy romance novels. But *herbs and vitamins*? You bet. A few examples:

■ Goofy "Bob" pops up with a big grin on his face in TV commercials on CNN, ESPN, and NBC because his nether regions have been supersized by an herbal concoction called Enzyte.

■ Unsolicited e-mails for "herbal Viagra" or for supplements from "Mr. Gigantic" or "Mr. Thick" flood your inbox.

■ Ads with couples in erotic poses supposedly enjoying spine-tingling sex delivered by "revolutionary new all-natural" herbal formulas now appear regularly in newspapers like *USA Today*.

The result was a concoction of tiny amounts of 16 ingredients: 10 herbs (including ginkgo and ginseng), two minerals (copper and zinc), two animal-tissue extracts (thymus glands and testicles), one vitamin (niacin), and one amino acid (arginine).

Warshak dubbed it "Enzyte" and began advertising in newspapers and magazines that it would add three inches to a man's genitals. As proof, he served up a never-published survey of 53 men who claimed that it worked. The price: \$100 for a month's worth of pills.

By 2002, Warshak was doing so well with Enzyte that he began running his "Smiling Bob" commercials on television. In 2003, his company grossed more than \$100 million, and he's projecting \$240 million in sales this year.

Along the way, Warshak dropped the bogus three-inch growth claim. ("There's no

pill, prescription or otherwise, that will make a penis longer," says urologist Irwin Goldstein.) Warshak's Web site (www.enzyte.com) now declares that Enzyte "does not alter natural physical size." But the images and the double entendres in his television ads imply otherwise.

As it turns out, the only thing that's growing (besides Enzyte's sales) is the number of consumers complaining about Warshak's company, Berkeley Premium Nutritionals. The Cincinnati Better Business Bureau says that the firm "has an unsatisfactory record with the Bureau due to a pattern of complaints concerning billing issues as well as unanswered and unresolved complaints." Berkeley is reportedly under investigation by the Ohio Attorney General's office. And two class action lawsuits are seeking refunds on behalf of Enzyte customers who can't get their money back from the company.

Spam, Bam, Thank You Ma'am

Even more annoying than the suggestive TV ads are the e-mails. Spam—uninvited e-mail solicitations—now accounts for close to 70 percent of all e-mail traffic worldwide. E-mails cost so little to send that spammers can distribute millions of messages virtually for free. All it takes is a tiny percentage of people to bite and you've got yourself a nice living. And bite they do.

Some seven percent of e-mail users in the U.S. have purchased products or services from spam, according to a 2003 survey by the Pew Internet & American Life Project. That adds up to more than eight million Americans.

During the first half of this year, spammers launched an average of 30,000 campaigns for male "enhancement" pills every day—each one involving thousands to millions of e-mails. Only offers for prescription drugs (often with no prescription required) and mortgage financing deals were more common, according to Commtouch, Inc., of Mountain View, California, which sells anti-spam technology.

The economics of the business were illustrated last year when a teenage spammer's customer list was inadvertently exposed on his Web site.

The Maine high school dropout ran a Web business called "Amazing Internet Products" that sold \$5 bottles of male enhancement pills for \$50. Customers were lured to the site by millions of spam e-mails promising that the supplement would add those elusive three inches.

In just one month, 6,000 people ordered nearly half a million dollars' worth of pills from the teenager using their credit cards—even though the Web site listed no address, telephone number, or any way of contacting the company. The manager of a \$6 billion mutual fund ordered two bottles, a Colorado restaurateur picked up four bottles, the head of a California airplane-parts business bought six bottles, and the coach of a Pennsylvania lacrosse club purchased four bottles.

Why do some men swear that sex pills work? It could be the "placebo effect"—the benefits from taking *any* pill, even a dummy one. But in a few cases there could be a more ominous reason.

"Researchers from Canada have found that some supplement companies are buying Viagra from China at very low prices and are adding it to their pills," reports Goldstein. "In some cases, they're putting in more than a high dose."

If a man who's on nitroglycerin takes one of these pills, says Goldstein, "he has a chance of dying from a bad reaction to the combination of the two drugs."

There are hundreds of pills and potions that promise to boost your libido, intensify your pleasure, or inflate the contents of your underwear. Among the nearly 100 different ingredients they contain, here are the seven that show up most often.

Arginine

Typical supplements: ArginMax, Enzyte, Libido-Max, Maxaman, VasoRect.

What is it? An amino acid that's found in nearly all foods. A small (three-ounce) piece of chicken breast, for example, contains nearly two grams of arginine.

What it does: Our bodies can convert arginine into nitric oxide, a compound that relaxes and opens up blood vessels, including those in or leading to the penis. (Viagra works by increasing the supply of nitric oxide.) In women, nitric oxide also increases blood flow to the genitals, but doesn't lead to sexual arousal. (Pfizer has given up on plans to market Viagra as a sex pill for women.)

The research: Prescription drugs that increase nitric oxide clearly make a difference. In 27 trials on a total of more than 6,500 men with erectile dysfunction (ED), those taking Viagra were able to have successful intercourse 57 percent of the time, compared with a success rate of 21 percent for those given a look-alike (but Viagra-free) placebo.

Compare that to the largest and best-designed study of arginine, in which 29 Israeli men with ED took five grams of the amino acid every day, while 17 similar men received a placebo.¹ After six weeks, there was no difference in the two groups' answers to questions about sex drive, erectile function, successful attempts at intercourse, and sexual satisfaction. Nor was there any difference in measurements of blood flow in their genitals.

According to the researchers, however, nine of the 29 arginine takers "reported a significant improvement in sexual function," while only two of the 17 placebo takers did. At least that was how the researchers subjectively interpreted the diaries that the volunteers kept during the study.

A smaller amount of arginine (1.5 grams a day) also had no measurable effect on 30 German men suffering erectile difficulties.²

The bottom line: "There's no way you can reliably say that arginine increases nitric oxide where it counts," says urologist Irwin Goldstein. "You can't predict that arginine is going to end up increasing blood flow to the genitalia. That's all fantasy."



Photo (top): Nick Waring.

¹ BJU Int. 83: 269, 1999.

² Urol. Int. 63: 220, 1999.



Ginkgo Biloba

Typical supplements: Emerita, Herbal Viva, Prolab HGW, VasoRect, Vigel, Vixen.

What is it? A tree whose seeds have traditionally been used in China to treat asthma and other respiratory problems.

What it does: Ginkgo leaves supposedly increase the flow of blood throughout the body.

The research: No published studies have ever tested whether ginkgo increases blood flow to the genitals. In 1998, a preliminary report suggested that the herb might counteract the loss of libido caused by antidepressants like Paxil, Prozac, and Zoloft. But when ginkgo was tested against a placebo, it didn't improve sexual function in 37 South Korean men taking antidepressants.¹

The bottom line: There is no good evidence that ginkgo improves sexual desire or performance in people, depressed or not.

¹ *Human Psychopharmacol.* 17: 279, 2002.



Ginseng

Typical supplements: Big Daddy, Cobra, Enzyte, Lioness, Vahard, VasoRect.

What is it? The roots of a plant widely cultivated in China, Japan, and Korea. For centuries it has been used as a general tonic.

What it does: "Some of the active ingredients found in some ginseng species can stimulate the release of nitric oxide from animal cells in test tubes," says endocrinologist Laura Murphy of Southern Illinois University in Carbondale. Nitric oxide increases the flow of blood and is important for sexual arousal.

The research: In the only two well-controlled studies, a total of 45 of 75 South Korean men with erectile dysfunction who took 1,800 to 2,700 mg of Korean red ginseng every day for two to three months reported an improvement in their sex lives.^{1,2} Eighteen of 75 men with erectile dysfunction who took a placebo reported improvement.

The bottom line: More men with erectile dysfunction said that they were helped by large amounts of ginseng than by a placebo. Whether those results—based on a small number of men—would hold up in larger studies is unknown. What's more, the men were given Korean red ginseng, not Panax, Siberian, or plain Korean ginseng, which are the kinds most frequently added to sex pills. "Korean red ginseng is made by steaming the herb, and that process creates

new compounds that aren't found in other kinds of ginseng," Murphy points out.

¹ *Int. J. Impot. Res.* 7: 181, 1995.

² *J. Urol.* 168: 2070, 2002.

Horny Goat Weed

Typical supplements: Cobra, Libido-Max, Pleasure Pill.

What is it? An herb with the name from PR heaven. Legend has it that shepherds noticed that goats became "frisky" when they grazed on the plant. Horny goat weed has traditionally been used to treat flagging libido and impotence.

What it does: Supplement makers claim that horny goat weed increases testosterone levels.

The research: No published studies have tested horny goat weed on testosterone levels, or on anything else having to do with sexual function. What's more, eight different species of the herb have been used in traditional medicine, and it's not clear which does what (or which you're getting in your pills). And extracting horny goat weed's active compounds for supplements produces different compounds than the traditional method of steeping the leaves in hot water.

The bottom line: There is no good evidence that horny goat weed improves sexual desire or performance.



Maca

Typical supplements: Enzyte, Exotica, Pro-Erex.

What is it? A root vegetable grown in the Peruvian Andes, where it has traditionally been used as an aphrodisiac.

What it does: According to www.peruvian-maca.com, a site

that sells maca supplements: "Since the alkaloids of maca cause the pituitary to produce more precursor hormones to the adrenal glands and the testes, the effects on energy and sexuality are notable."

The research: In the only published study in humans, 18 of 45 Peruvian men with no impotency problems who had been taking maca for eight weeks reported a mild increase in their "sexual desire." None of the 12 men given a placebo noticed a change.¹ The men took 1.5 or three grams of maca a day—more than we found listed on the labels of most libido-boosting supplements that contain maca.

The bottom line: There is little evidence that maca increases libido or sexual performance.

¹ *Andrologia* 34: 367, 2002.

Tribulus Terrestris

Typical supplements: Enzyte, Lioness, Suregasm, Vahard.

What is it? An herb that has traditionally been used in China, India, and Greece to treat impotence and low libido in men and women.

What it does: Bulgarian athletes claimed that it helped them win Olympic medals by increasing their testosterone levels.

The research: A Bulgarian supplement manufacturer is the world's main source of research (all of it unpublished) and claims about Tribulus. No published research has tried to confirm the company's studies showing that the herb improves sexual function, fertility, or menopausal symptoms.

The bottom line: There is no good evidence that Tribulus terrestris improves sexual desire or performance.



Yohimbe

Typical supplements: Cobra, Elexia, Enzyte, Herbal Viva, Libido-Max, Prolab HGW.

What is it? The bark of the Yohimbe tree. Companies add yohimbe to their sex pills because it's a natural—but unreliable—source of the prescription drug yohimbine (yo-HIM-bean).

What it does: Yohimbine has been approved by the Food and Drug Administration for dilating the pupils of the eyes. Because of the drug's effect on the nervous system, physicians have also prescribed it to treat erectile dysfunction. When Viagra came along, use of yohimbine dropped off.

The research: Yohimbine seems to help about half the men who take it. No published research has looked at over-the-counter supplements that contain yohimbe bark.

The bottom line: If you take yohimbe to get yohimbine, you may be wasting your money. In a recent analysis of four supplements by www.consumerlab.com, one contained just one percent of the yohimbe it was supposed to.

Warning: *Consumer Reports* magazine placed yohimbe on its "Likely to be Hazardous" list of dietary supplements last spring, citing reports of sudden rises in blood pressure, heart arrhythmias, difficulty breathing, and heart attack.

COLLATERAL DAMAGE

Looking for motivation to eat a healthy diet and stay physically active (or encourage your husband to)? If avoiding a heart attack or stroke or diabetes isn't reason enough, the next sentence should do it.

"The same risk factors that damage blood vessels to the heart can also damage blood vessels to the penis, and if these are damaged, erection will not occur normally," says cardiologist Robert Kloner, director of research at the Heart Institute of Good Samaritan Hospital in Los Angeles. "Lipid abnormalities, smoking, diabetes, and high blood pressure raise the risk of both heart disease and ED."

In fact, "erectile dysfunction may be an early warning sign for heart disease, especially in men over 40 or 50 years of age," says Kloner. Men with erectile dysfunction (ED) are twice as likely to suffer heart attacks as men without ED, according to a recent analysis of the health records of more than 25,000 U.S. men.¹

In a study of his male patients with coronary artery disease (their average age was 64), Kloner and his colleagues found that three-quarters had trouble achieving or maintaining erections.²

And men who had no chronic medical conditions and who exercised, didn't smoke, and didn't drink excessively had the lowest rates of erectile dysfunction among the more than 31,000 participants in the Health Professionals Follow-Up Study at the Harvard School of Public Health.³

"Unfortunately, we don't have enough information about whether the risk of ED can be reversed by lowering your risk factors for heart disease," says Kloner.

That's because no one has done a study. But researchers have tested the impact of weight loss and exercise on ED.

"Four studies show that if you exercise you can lower your risk of ED," says urologist Irwin Goldstein of the Boston University School of Medicine. "Exercise promotes the health of the endothelial cells lining the arteries, and that lowers the risk of impotence."

And in a 2004 study, 17 of 55 obese men with ED regained their sexual function after losing an average of 33 pounds over two years and walking about 30 minutes a day. Only three of 55 similar men who didn't lose weight or become more active overcame their ED.⁴

What about women? "Cardiovascular disease definitely, substantially affects sexual function in women," says Goldstein. "But we don't have as much evidence about this as we do for men because the research is just emerging."

Now are you ready for that brisk walk?

¹ *Int. J. Impot. Res.* 16: 350, 2004.

² *J. Urol.* 170: S46, 2003.

³ *Ann. Intern. Med.* 139: 161, 2003.

⁴ *J. Amer. Med. Assoc.* 291: 2978, 2004.